



Contribution ID: 139

Type: Talk

## 【604】 New magnetic phase in the nickelate perovskite $T\text{NiO}_3$

Wednesday 23 August 2017 15:00 (15 minutes)

The perovskite rare-earth nickelates  $\text{RNiO}_3$  are a family of transition metal oxides with strong electron correlations. They exhibit antiferromagnetic order with four Ni spins per period below a composition-dependent Néel temperature  $T_N$ . Despite its high relevance to theoretical claims of ferroelectricity in the magnetically ordered phase, the exact arrangement of moments is still not well established. Our recently obtained results of nuclear magnetic resonance and muon spin rotation experiments on the closely related compound  $T\text{NiO}_3$  reveal a second magnetic phase transition at  $T_N^* = 202$  K, above  $T_N = 104$  K. The new phase is suppressed by magnetic fields on the order of at most 1 T.

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**Session Classification:** Correlated-Electron Physics in Transition-Metal Oxides

**Track Classification:** Correlated-Electron Physics in Transition-Metal Oxides